INFORMATION LINK

Information Services Division

Development/Software Services

YEAR 2000 CONVERSION UPDATE
Vern Welder

Year 2000 conversion of Information Services Division (ISD) supported mainframe systems was 92% complete as of December 1, 1998. We increased our completion percentage by 57% in the first 11 months of 1998.

APPLICATION SERVER SELECTION
Vern Welder

In the July Information Link, I mentioned that ISD had started evaluating application server products. That project had a slight delay, but is now back on schedule. We plan to choose an application server vendor by January 15, 1999.

An application server will provide the ability to write industrial strength applications that use a WWW browser to access on-line programs. Application logic processing and database processing are done on a centralized server so programs do not have to be distributed to every client PC.

From a mainframe user's perspective, the difference between application server processing and mainframe processing is that a WWW browser will provide the interface to the application versus using a 'green screen.' From a client/server user's perspective, when a new version of an application is released, it will not have to be downloaded to every user's PC. The new version is kept on the server and shared by all system users via their WWW browsers.

MIDDLEWARE FOR ADABAS
Vern Welder

ISD is installing Adabas SQL Server (ESQ) which provides ODBC access to Adabas files. The first phase of installation is complete and the final phase is planned for completion in January 1999. PC's that use ESQ will require an Adabas Entire Network client (list price $295) and an Adabas ODBC client (list price $75).

Administrative Services

PREPARING PERSONAL COMPUTERS FOR DISPOSAL
Dan Sipes

As agencies upgrade to newer computers, one area that can be neglected is the proper disposal of the old computer. Most agencies dispose of the their old computers by sending them to Surplus Property who may distribute them to other agencies, political subdivisions, or the general public. Prior to transferring the computer to Surplus Property, agencies should ensure that all data has been removed from the hard drive. Failure to properly address this issue could potentially put the State of North Dakota at legal risk.

The easiest way to address the issue of erasing data from the hard drive is to format the hard drive. While this does not really erase the data, it should prevent the average person from being able to access data that has been stored on the hard drive. If confidential data has been stored on the personal computer, agencies may prefer to utilize software such as Sanitizer from Infraworks (http://shredder.com) to ensure more technical and determined individuals are not able to recover data from formatted hard drives. This type of software attempts to remove all traces of information from the hard disk by overwriting the disk up to 999 times.

ISD recommends that agencies format the hard drive of each computer before disposal. Beyond that, the agency will have to evaluate the risks involved with the type of data stored versus the cost of purchasing software to perform more thorough data erasure.

BUDGET FOR SOFTWARE UPGRADES
Mike Ressler

Agencies need to continually budget and plan for software upgrades. It is important to stay no more than one or two releases behind the current version, even though you feel the version installed is meeting your requirements.

As technology continues to impact all facets of our job, we are integrating with other users and their systems more today than ever before. If the software version you use is not upgraded to current versions, the potential failure of integrating with others increases. ISD has experienced this with Microsoft Word, as those with older versions have not been able to open word documents sent by e-mail users who have current versions. Another recent example occurred when ISD upgraded the operating software on our enterprise server and some users with older versions of communications software could not access their applications.

Technology is expensive and can be frustrating, but it can also produce many

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INSIDE THIS ISSUE . . .

PC VIRUS HOAXES
Al Veit

PC viruses are a fact of life and in the news almost daily. If you have one of the current anti-virus software products and you stay current with the product's virus signature files, you have taken the first important steps to minimize the problems PC viruses can cause. One effect that viruses have created is the virus hoax. This was created to cause panic and uneasiness in novice PC users, but it can cause almost as much disruption as a real virus.

A hoax is created and spread by people who receive an e-mail message warning them about a certain virus and its danger. These people then forward the e-mail to other people. This e-mail forwarding will eventually stop, but during the e-mail spree a tremendous amount of time and resources are expended in sending and receiving all of the e-mail.

There are several steps which will help minimize the impact of such virus hoaxes:
1) Do not automatically forward any e-mail warning of a virus.
2) Inform your PC support group or the ISD Security Administrator about the virus warning and ask them to verify the validity of the virus warning.
3) Please check the following Web site for information on virus hoaxes. The address is http://kumite.com/myths/

PC viruses and virus hoaxes are a fact of life, but with proper precautions their impact can be minimized.

Information Technology Planning

THE STATEWIDE IT PLAN IS NOW AVAILABLE!
Nancy Walz

ISD's Technology Planning Section has been busy for several months putting together the first Statewide Information Technology Plan. The completion of the plan marks a major accomplishment, not just for the planning staff, but also for the many agency personnel who submitted their IT plans, participated in standards committee work, and supported the planning process. The plan includes the state vision for information technology and identifies issues that should be addressed to improve the use of technology by state government. A summary of the IT plan from each state agency is included in the plan.

One copy of the Statewide Information Technology Plan has been reserved for each state agency. Agencies may pick up their copy of the plan from Darlene Wolfgram in room 101 in the Judicial Wing of the Capitol or by calling 328-1000. Legislators will receive their copies when the legislative session begins in January. The plan will also be available on ISD's web site at http://www.state.nd.us/isd/planning/.

We encourage you to read through the plan to determine how your agency technology plan aligns with the statewide plan. The Statewide Information Technology Plan will be a valuable reference to agencies, stakeholders, and technology partners during the upcoming biennium.

Computer Support Services

ISD IMPLEMENTS A WEB SERVER THAT HANDLES 20 MILLION TRANSACTIONS A DAY
Dean Glatt

To perform daily business, North Dakota state government requires huge amounts of data flow. Add to that the continuing demand to do business via the World Wide Web at all hours of the day and these challenges required ISD to implement a system that could take legacy data from DB/2, ADABAS, and Oracle databases and get it there without disrupting current processes. IBM's S/390 Enterprise Server connects the WWW to government data with dozens of internet-aware server components such as traditional HTTP web servers or Lotus' Domino Web Server.

We are presenting what used to be mainframe data to client/server, WWW, java and web application servers on a system that can handle 400 million internet hits per day!

This implementation has another benefit for state government. The S/390's 1998 impressive up-time record of 98.87% ensures that as we continue to enhance methods of doing business with the citizens via the World Wide Web, the requirement for systems to be continuously available 24 hours per day can realistically be met.

Telecommunication Services

PROBLEM REPORTING FOR DESKTOP SUPPORT ISSUES
Cindy Kemmet

If your agency requires the services of our Desktop Support Group, please call the ISD Support Center at 328-4470 and allow us to formally log your technical problem or question. The Desktop Support Group provides consulting, installation, and troubleshooting services for PC's, LAN's, and the administration of E-Mail. Please do not call the Desktop Support staff directly for the purpose of reporting problems that require their assistance. If your call requires the services of Desktop Support, the Support Center will assign

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ISD EMPLOYEE PROFILE

Name: Kim White
Job Title: Network Operations Manager
Section of ISD: Telecommunications
Job Responsibilities: Network operations designs, installs, troubleshoots, and managing the wide area network equipment to all state agencies. I help set policy and standards, assign projects to analysts and technicians, keep an inventory of all installed equipment, keep records accurate for billing purposes, and manage staff.
Years at ISD: 23 years as of November 1, 1998

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rewards. To help minimize the frustration, it is essential to plan for these software upgrades.

your call to them in our problem tracking system. Desktop Support will be immediately notified on-line.

Benefits and Visibility
The Support Center is staffed Monday through Friday from 7:00 AM until 5:00 PM to take your call. All calls placed to the Support Center are logged on-line in a problem tracking system called HEAT. A unique problem tracking number is assigned to your call. You may use this number as a reference at any time if you need to call and check on the status of your reported problem.

We also assign a priority number from 1 to 4 to your call which tells us the urgency of your call. Once your call is entered in our system, it has the attention of not only the group it was assigned to, but also the supervisor or manager of that section. We also have escalation procedures in place that will notify us when your reported problem is still unresolved beyond a predetermined number of working hours. Escalation of problems allows us to bring more attention from managers and possibly more resources to your call.

A link to HEAT is under construction on ISD's home page. This will allow our customers to go on-line and view the status of their reported problems and questions.

We appreciate your cooperation, since formal reporting allows for a more organized workflow and insures your call is promptly and effectively handled. If you have any questions, please call me at 701-328-3003 or send me an e-mail at ckemmet@state.nd.us.

TELEPHONE FRAUD
Jim Gaarder

In the past few years, we have heard warnings about not only telephone fraud, but fraud in general. The Attorney General's Office and ISD have distributed warnings on what to do when you suspect fraud. In this article, I will touch on some of the things ISD has done with the State's telephone system to help prevent telephone fraud.

TELEPHONE OUTAGES
Jim Gaarder

In an effort to provide better service and be more responsive to users, ISD will be notifying agencies when outages occur with the telephone system.

A telephone service outage typically occurs when one or more of the lines used to access ATT or US West goes down. ISD has always worked as quickly as possible to restore service to our users, but have not made an effort to notify users of the outage.

In the future, ISD Customer Service will notify the IT Coordinators for each department when outages occur. Obviously, if the outage is just for a few seconds or minutes we cannot get a notification out before access is restored. However, if service is interrupted for several minutes or more, ISD will send either a FAX, voice mail, or e-mail to the IT coordinators indicating what we believe is causing the interruption and an estimate of how long the service will be interrupted.

It is important to understand how the State's telephone network works. In Bismarck, whether you are on a State owned switch or have Centrex service, all access for local and long distance calls is gained through the telephone system at the Capitol building. Because of this system, ISD is able to control what options are allowed. ISD does not allow forwarding of calls externally from the system. Once the participant on the State system hangs up, the call is dropped. ISD has also generally blocked calls to 900 numbers except 911. ISD has blocked calls to all area codes that are typically used for fraud; for example, 809 in the Caribbean. We have also put out warnings to our users not to dial 9 + 0 or 9 + 011 when forwarding calls.

In areas external to the Bismarck phone system, an authorization code is required to make a long distance call. Wherever possible, we have asked our telephone service provider to program their switch to prevent telephone fraud to the State's users.

Although ISD has tried wherever possible to take measures to prevent toll fraud, it is important for our users to be aware of the problem. If you are suspicious of such fraud, please call ISD at 328-4470. Never forward a call external to your system. If someone calls and identifies themselves as an ATT or US West service person and asks you to do something out of the ordinary, ask questions. Get their name and where their from, then tell them you

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want to verify it and call them back. Some businesses have been hit hard for telephone calls they never made or were fraudulently made because they didn't take precautions. With a little awareness, hopefully that won't happen to the State of North Dakota.

LOCAL DIAL ACCESS
Jerry Fossum

Local dial access lines are now available for state agencies in Fargo, Grand Forks, Minot, and Jamestown. To avoid attempts at fraudulent use of these access lines, ISD does not intend to generally publish the phone numbers. The numbers can be obtained from Al Veit, ISD Security Administrator, at 328-3173 or Kim White, ISD Network Operations Manager, at 328-4675.

A registered network dial access user-id and password are necessary to use this service. User-id's and passwords may be obtained from Al Veit. There is a monthly charge of $8 per user-id.

ISD will continue to review dial access usage and will implement local dial access whenever the cost of using 1-800 service in a city exceeds the cost to the state of installing the necessary infrastructure to provide local access.